1. **Name of Proponent:** Otay Ranch New Homes, LLC

2. **Lead Agency Name and Address:** City of Chula Vista
Development Services Department
276 Fourth Avenue
Chula Vista, CA 91910

3. **Addresses and Phone Number of Proponent:** Otay Ranch New Homes, LLC
1392 East Palomar Street, Suite 202
Chula Vista, CA 91913

4. **Name of Proposal:** Otay Ranch Village Two SPA Plan Amendment

5. **Date of Checklist:** January 13, 2012

6. **Case No.** 10-009

ENVIRONMENTAL ANALYSIS QUESTIONS:

Issues:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, tress, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Comments:

(a) Less Than Significant Impact. Olympic Parkway and Heritage Road are designated as scenic roadways in the City of Chula Vista General Plan (City of Chula Vista 2005a). There are no scenic vistas on the project site. The project site is visible from adjacent properties and roadways, including Olympic Parkway. The impacts to scenic resources in the project area due to new housing development were analyzed in the Sectional Planning Area (SPA) Plan Environmental Impact Report (EIR). The 2006 SPA Plan EIR identified significant and unmitigable impacts to aesthetics due to the change from a rural to a more urban use and the associated visual character and landform impacts. The residential development proposed would be visually similar to the development approved in the SPA Plan, as well as to those in the surrounding communities, and would therefore not constitute any new significant impacts beyond those identified in the 2006 SPA Plan. The proposed development would remain in conformance with the Design Guidelines in the SPA Plan. In conformance with these standards, the proposed development would use architectural details, such as wall offsets, balconies, windows, trellises, columns, archways, doorways, patios and porches, to promote variety and enhance the human-scale pedestrian activity in the neighborhoods. The proposed development would also avoid ridgelines and steep hillside slopes, and would include extensive landscaping in conformance with the SPA Plan's Landscape Concept Plan. Impacts from the proposed project on a scenic vista would be less than significant.

(b) Less Than Significant Impact. State scenic highways are designated by the California Department of Transportation (CalTrans) and are highways that maintain sensitive landscapes or valuable scenic resources within the highway viewshed. According to the CalTrans State Scenic Highway Program Map, there are no state scenic highways within the project site vicinity (CalTrans 2011). Additionally, as mentioned in the previous response the project site is located just south of Olympic Parkway, which is designated as a Scenic Roadway in the City of Chula Vista General Plan. The impacts to scenic resources in the project area due to new housing development were analyzed in the SPA Plan EIR, and the residential development proposed would be visually similar to the development approved in the SPA Plan, as well as to those in the surrounding communities. As a result, impacts to scenic resources located within a state scenic highway or a scenic roadway would be less than significant.

(c) Less Than Significant Impact. As previously discussed in Response I(a), the proposed project would maintain the architectural standards in the SPA Plan Design Guidelines and would include extensive landscaping. The visual character of the project site would not be substantially different from what is currently approved for the site. Therefore, impacts to the visual character or quality of the project site and its surroundings would be considered less than significant.

(d) Less Than Significant Impact. As previously discussed in Response I(a), the proposed project

would maintain the architectural standards in the SPA Plan Design Guidelines, which include measures applicable to exterior lighting to ensure that all lighting would conform to City of Chula Vista (City) standards or a City-approved theme lighting program. The SPA Design Guidelines specific to lighting include requirements such as low pressure sodium lights, and shielding to direct the light downward. Conformance with the Design Guidelines and applicable City standards would ensure that impacts due to lighting would be less than significant.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?				
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				

Comments:

(a) No Impact. The project site has been graded and approved for residential development. The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (City of Chula Vista 2006). The 2006 SPA Plan EIR identified significant and unmitigable cumulative impacts to agricultural resources due to the loss of agricultural land and land suitable for the production of crops. The proposed project would not increase the severity of those impacts, and

would therefore not constitute any new significant impacts beyond those identified in the 2006 SPA Plan EIR. No impacts to farmland would occur as a result of the project.

(b) No Impact. The proposed project site is not zoned for agricultural use and is not subject to a Williamson Act contract (City of Chula Vista 2006). Therefore, no impacts would occur.

(c) No Impact. Forest land is defined as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits" (California Public Resources Code, Section 12220(g)). Timberland is defined as "land, other than land owned by the federal government and land designated by the board as experimental forestland, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees" (California Public Resources Code, Section 4526). A Timberland Production Zone is defined as "an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision" (California Public Resources Code, Section 51104(g)).

The project site is zoned for residential use and has been graded for future residential development. Additionally, as indicated on the California Department of Forestry and Fire Protection's Land Cover map, the project site is designated as Shrub and would not be located in an area zoned as forest land, timberland, or a Timberland Production Zone (California Department of Forestry and Fire Protection 2011). Therefore, no impacts to forest land or timberland would occur as a result of the project.

(d) No Impact. As discussed above, the project site has been approved for residential development and has been graded. No trees exists on the project site. Therefore, no impacts to forest land or conversion of forest land to non-forest use would occur as a result of the project.

(e) No Impact. As described in Responses II(a) and II(b) above, no portion of the project is located within or adjacent to existing Prime, Unique or Important agricultural areas, nor would project implementation result in the conversion of farmland to non-agricultural use. Additionally, as described in Responses 5.2-*c* and 5.2-*d*, no portion of the project site is located within or adjacent to forest land, timberland, or a Timberland Production Zone, nor would project implementation result in the conversion of forest land to non-forest use. Therefore, no impacts would occur.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	☐	☐	☒	☐
g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	☐	☐	☒	☐

Comments:

An Air Quality Technical Report was prepared by Dudek for the proposed project and is included as Appendix A (Dudek 2011a). The analysis contained in this section is based on the findings of the Air Quality Technical Report.

(a) Less Than Significant Impact. The proposed project is located within the San Diego Air

Basin (SDAB), which is subject to the San Diego Air Pollution Control District (SDAPCD) guidelines and regulations. The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis (most recently in 2009). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The RAQS relies on information from the California Air Resources Board (CARB) and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the cities and San Diego County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the cities and San Diego County as part of the development of their general plans.

As stated previuosly, the RAQS relies on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and by the county as part of the development of their general plans. As such, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the RAQS. The 2006 SPA Plan EIR identified significant and unmitigable impacts to air quality due to an inconsistency with the growth projections of the local regional air quality plan. While the SDAPCD does not provide guidance regarding the analysis of impacts associated with air quality plan conformance, the County of San Diego's Report Format and Content Requirements does discuss conformance with the RAQS. The guidance indicates that, in the event that a project requires a general plan amendment, additional analysis may still provide substantial evidence that the growth is accounted for in the RAQS assumptions. To demonstrate conformance in this case, a growth projection analysis can be completed for the applicable Subregional Area (SRA) and/or Metropolitan Statistical Area (MSA) comparing the SANDAG growth projections with the actual development expected to occur. If the project, in conjunction with other projects, contributes to growth projections that would not exceed SANDAG's growth projections for that SRA or MSA, the project would not be in conflict with the RAQS.

The project site is located within SRA 20 – Sweetwater. SRA 20 generally consists of the portions of Chula Vista east of Interstate 805 and south of State Route 125. SANDAG's population estimate for this SRA in 2009 (year the most recent RAQS was adopted) was 130,835, and the forecasted population in 2015 (project buildout) is 143,526. Therefore, SANDAG's projections anticipated approximately 12,700 new residents in this SRA over a 6-year period. Because the northern portion of SRA 20 is essentially built out, the anticipated growth would occur almost exclusively in Otay Ranch (south of Olympic Parkway).

Since the economic recession hit in 2007, homebuilding in Otay Ranch has slowed considerably, resulting

in fewer new homes being built and therefore fewer new residents. Because development in Otay Ranch has not kept pace with SANDAG's projections, the addition of 197 residential units (approximately 632 new residents) to the SRA as a result of the proposed project would be accommodated in the population forecast used to prepare the 2009 RAQS. While the proposed project was not included in the underlying growth estimates for the SDAB used as the basis for the RAQS update, it would not conflict with or obstruct implementation of the RAQS since the SANDAG population projections for SRA 20 would accommodate substantially more growth (12,700 new residents) than that associated with the proposed project (632 residents). Furthermore, the project would be consistent with the stationary and mobile source measures included in the RAQS for the purposes of reducing emissions, such as further control of architectural coatings and residential water heaters.

At the local level, the City of Chula Vista requires an Air Quality Improvement Plan (AQIP) to be submitted for all projects consisting of 50 dwelling units or greater. The AQIP is intended to provide an analysis of a project's air pollution impacts, and requires that a project demonstrate the best available design to reduce vehicle trips, maintain or improve traffic flow, reduce vehicle miles traveled, and implement appropriate traffic control measures. An AQIP was prepared for the Village 2, 3 and Portion of 4 SPA Plan. The proposed project would comply with the adopted Village 2, 3 and Portion of 4 SPA Plan through compliance with the City's Green Building Standards and Section 15.26.030 of the City's Municipal Code, which mandates that new residential projects that fall within climate zone 7 must be at least 15% more energy efficient than the 2008 Energy Code. The proposed project would also comply with the City of Chula Vista "Solar Ready" Ordinance, which requires new residential construction to include plumbing specifically designed to allow the later installation of a system which utilizes solar energy as the primary means of heating domestic potable water and include electrical conduit specifically designed to allow the later installation of a photovoltaic (PV) system which utilizes solar energy as a means to provide electricity.

Thus, the proposed project would be consistent with applicable air quality plans, and impacts would be less than significant.

(b) Less Than Significant Impact. Construction of the proposed project would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from grading and site preparation activities. NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Emissions from the construction phase of the project were estimated through the use of emission factors from the URBEMIS 2007, Version 9.2.4, land use and air emissions model. For the purposes of modeling, it was assumed that the proposed project would commence in December 2011. Construction would include the following phases: fine grading (3 months), paving (2 months), and construction of 197 residential units (51 months including architectural coatings). Total construction is expected to take approximately 4.5 years. For the analysis, it was generally assumed that heavy construction equipment would be operating at the site for approximately 8 hours per day, 5 days per week (22 days per month), during project construction. URBEMIS model assumptions for construction equipment were used in calculating construction emissions as equipment and machinery mix would be typical of residential development. Additional details of the construction schedule and equipment are included in Appendix A. The equipment mix is meant to represent a reasonably conservative estimate of construction activity.

The proposed project is subject to SDAPCD Rule 55 – Fugitive Dust Control. This requires that the project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit any fugitive dust (PM10 and PM2.5) that may be generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least two times daily, resulting in an approximately 55% reduction of particulate matter.

Table 1 shows the estimated maximum daily construction emissions associated with the construction phase of the proposed project.

Table 1
Estimated Maximum Daily Construction Emissions
(pounds/day)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Proposed Project Emissions						
2011	2.86	23.49	12.98	0.00	12.49	3.44
2012	14.06	22.00	40.05	0.04	12.39	3.35
2013	13.70	17.99	37.52	0.04	1.29	1.08
2014	13.37	16.62	35.16	0.04	1.17	0.97
2015	13.06	15.28	32.99	0.04	1.09	0.90
2016	12.77	14.10	31.06	0.04	1.00	0.81
Maximum Daily Emissions	*14.06*	*23.49*	*40.05*	*0.04*	*12.49*	*3.44*
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Dudek 2011a

As shown, daily construction emissions would not exceed the South Coast Air Quality Management

District (SCAQMD) significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. As such, construction of the proposed project would result in a less than significant impact.

Following the completion of construction activities, the proposed project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from project land uses, as well as mobile and stationary sources including vehicular traffic from residents, space heating and cooling, water heating, and fireplace (hearth) use.

The proposed project would impact air quality through the vehicular traffic generated by project residents. According to the project's Traffic Impact Study (Fehr and Peers 2011), total project-generated daily traffic is estimated to be 1,674 trips per day, based on 10 trips per unit per day for the 49 single family units, and 8 trips per unit per day for the 148 multi-family units. The URBEMIS 2007 model was utilized to estimate daily emissions from proposed vehicular sources (refer to Appendix A). URBEMIS 2007 default data, including temperature, trip characteristics, variable start information, emissions factors, and trip distances, were conservatively used for the model inputs. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for 2016 (full buildout) were used to estimate emissions.

In addition to estimating mobile source emissions, the URBEMIS 2007 model was also used to estimate emissions from the project area stationary sources, which include natural gas appliances, hearths, landscaping (which would not produce winter emissions), consumer products, and architectural coatings. All residential units would be constructed with natural gas fireplaces.

The present estimation of proposed operational emissions is based upon typical residential and retail uses, and the analysis is considered a reliable estimate of the project's likely emissions. Table 2 presents the maximum daily emissions associated with the operation of the proposed project after all phases of construction have been completed. The values shown are the maximum summer or winter daily emissions results from URBEMIS 2007. Complete details of the emissions calculations are provided in Appendix A of this document.

Table 2
Estimated Daily Maximum Operational Emissions – 2016
(pounds/day)

Proposed Project Emissions	**VOC**	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Summer						
Motor Vehicles	9.43	11.07	107.79	0.14	24.68	4.76
Area Sources	14.22	2.57	9.84	0.00	0.02	0.02
Total	23.65	13.64	117.63	0.14	24.70	4.78
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Winter						
Motor Vehicles	9.54	16.19	113.03	0.12	24.68	4.76
Area Sources	12.73	4.10	1.75	0.01	0.13	0.13
Total	22.27	20.29	114.78	0.13	24.81	4.89
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Dudek 2011a

As shown, daily area source and operational emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. As such, the proposed project would result in less than significant operational impacts to air quality.

(c) Less Than Significant Impact. In analyzing cumulative impacts from the proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). If the proposed project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

The SDAB has been designated as a federal nonattainment area for O_3, and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions associated with construction generally result in near-field impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SDAB. As discussed earlier, the emissions of all criteria pollutants, including O_3 precursors (NOx and VOCs), PM_{10}, and $PM_{2.5}$, would be well below the significance levels during both construction and operation of the proposed project. Therefore, the project's contribution to cumulative construction emissions would be less than significant.

For these reasons, implementation of the proposed project would not result in a significant cumulative impact to air quality.

(d) Less Than Significant Impact. The greatest potential for toxic air contaminant (TAC) emissions during construction would be diesel particulate emissions from heavy equipment operations and heavy-duty trucks and the associated health impacts to sensitive receptors. The proposed project site is currently vacant; however, the nearest residences are located approximately 800 feet north of the project site, across Olympic Parkway. Residences are currently being built

within Village Two as well, adjacent to the project site.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SDAPCD recommends an incremental cancer risk threshold of 10 in a million. "Incremental Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 70-year lifetime will contract cancer based on the use of standard risk-assessment methodology. The project would not require the extensive use of heavy-duty construction equipment, which is subject to a CARB Airborne Toxics Control Measure (ATCM) for in-use diesel construction equipment to reduce diesel particulate emissions, and would not involve extensive use of diesel trucks, which are also subject to an ATCM. Total construction of the proposed project would last for approximately 4.5 years, after which time project-related TAC emissions would cease. Thus, the proposed project would not result in a long-term (i.e., 70 years) source of TAC emissions. No residual TAC emissions and corresponding cancer risk are anticipated after construction. As such, the exposure of project-related TAC emission impacts to sensitive receptors during construction would be less than significant.

(e) Less Than Significant Impact. Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the proposed project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors are temporary and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered less than significant.

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project includes residential and retail uses and would not result in the creation of a land use that is commonly associated with odors. Therefore, project operations would result in a less than significant odor impact.

The proposed project will be constructed in the vicinity of the Otay Landfill. This facility will occasionally produce odors that can be detected outside of the landfill boundary. As indicated in the Village Two SPA Plan EIR, the Otay Landfill has no history of odor complaints and uses a flare to dispose of excess landfill gas. As a result, odor impacts from the Otay Landfill on the proposed project would be considered less than significant.

(f) Less Than Significant Impact. A general target of 20% below business as usual has been established for the purposes of assessing operational GHG emissions of projects in the City of Chula Vista. This reduction is considered an appropriate midpoint between the 2010 and 2020 targets set forth in AB 32. Additionally, consistent with the City's Green Building Standards and Section 15.26.030 of the City's Municipal Code, new residential projects that fall within climate zone 7 must be at least 15% more energy

efficient than the 2008 Energy Code. Therefore, a 15% reduction from business as usual would ensure consistency with the City's Municipal Code, where "business as usual" is considered to be development according to the energy efficiency standards established in the 2005 Energy Code standards. Importantly, this threshold is only applicable to operational emissions.

GHG emissions would be associated with the construction phase of the proposed project through use of construction equipment and vehicle trips. Table 3 shows the estimated annual GHG construction emissions associated with the proposed project.

Table 3
Estimated Construction GHG Emissions
(metric tons/year)

Construction Year	CO_2E Emissions
2011	22
2012	514
2013	648
2014	648
2015	648
2016	216

Source: Dudek 2011a

Operation of the proposed project would result in GHG emissions from vehicular traffic generated by residents, area sources (natural gas appliances, hearth combustion, and landscape maintenance), electrical generation, solid waste generation, and water supply. Emissions associated with vehicular traffic, electrical generation, and water supply would be reduced by implementing GHG reduction measures.

The estimated GHG emissions associated with vehicular traffic, area sources, electrical generation, water supply, and solid waste generation are shown below in Table 5. Additional detail regarding these calculations can be found in Appendix A. The estimated emissions of CO_2E would be 3,752 metric tons per year without the GHG reduction measures ("business as usual"), and 2,810 metric tons per year with the GHG reduction measures. As indicated in Table 4, the GHG reduction measures would reduce GHG emissions by approximately 25%.

Table 4
Estimated Operational GHG Emissions
(metric tons/year)

Source	CO_2E Emissions	CO_2E Emissions w/ GHG Reduction Measures	Percent Reduction
Motor Vehicles	2,409	1,638	32%
Area Sources			

Natural Gas Combustion	523	445	15%
Hearth Combustion and Other	2	2	0%
Electrical Generation	287	244	15%
Water Supply	248	198	20%
Solid Waste Generation	282	282	0%
Total	**3,752**	**2,810**	**25%**

Source: Dudek 2011a

The City of Chula Vista has developed a number of strategies and plans aimed at improving air quality while also addressing global climate change. In November 2002, Chula Vista adopted the Carbon Dioxide Reduction Plan in order to lower the community's major greenhouse gas emissions, strengthen the local economy, and improve the global environment. In addition, as a part of its Growth Management Ordinance and Growth Management Program, the City of Chula Vista requires that an Air Quality Improvement Plan (AQIP) be prepared for all major development projects with air quality impacts equivalent to that of a residential project of 50 or more dwelling units.

As shown in Table 5, with implementation of GHG reduction measures the proposed project would reduce GHG emissions by 25%. The proposed project would therefore exceed the target of 20% below business as usual that has been established for the purposes of assessing operational GHG emissions of projects in the City of Chula Vista, and this reduction would be consistent with the goals of AB 32. Furthermore, the proposed project would be consistent with the City's Green Building Standards and Section 15.26.030 of the City's Municipal Code by employing energy efficient measures beyond that required by the Energy Code, resulting in a 15% reduction in emissions generated by in-home energy use. Additionally, the proposed project would reduce the overall use of potable water by 20%, consistent with the City's Municipal Code. Lastly, it should be noted that the project is higher-density residential development, which ultimately helps in reducing vehicle miles traveled. The project would therefore have a less than significant impact on global climate change.

(g) Less Than Significant Impact. Refer to Response III(f). Impacts would be less than significant.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Comments:

(a) No Impact. The proposed project site was analyzed in the SPA Plan EIR, and any impacts to biological resources were addressed in that analysis. The 2006 SPA Plan EIR identified significant and unmitigable impacts to biological resources due to impacts to regional raptor foraging habitat. The proposed project would not increase the severity of those impacts, and would therefore not constitute any new significant impacts beyond those identified in the 2006 SPA Plan EIR. The site has been approved for development, graded, and improved, and does not support any special status species, sensitive habitats, wetlands, or wildlife corridors. No impacts would result.

(b) No Impact. Refer to Response IV(a).

(c) No Impact. Refer to Response IV(a).

(d) No Impact. Refer to Response IV(a).

(e) No Impact. The proposed project would increase the density of residential development on the project site compared to what has been previously approved under the SPA Plan. This increase in density would not increase the biological impacts on the site, as all development would occur within the existing Village Two project site. The project would therefore not conflict with any local policies or ordinances protecting biological resources.

(f) No Impact. Refer to Response IV(e). The proposed project would be developed within the pre-approved development area, which is part of the larger SPA Plan. The SPA Plan is a Covered Project pursuant to the Otay Ranch RMP and Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Therefore, the proposed project would not conflict with the Chula Vista MSCP Subarea Plan.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Comments:

(a) No Impact. The term "historic resources" applies to any such resource which is at least 50 years old and which is either listed, or determined to be eligible for listing, in the California Register of Historical Resources. Table 5.4-1 of the City's Final General Plan Update EIR lists all Chula Vista Designated Historic Resources, and no resource listed is located on or in the vicinity of the project site (City of Chula Vista 2005b). Additionally, grading and construction of roads associated with Village Two has disturbed lands surrounding the proposed project site, and impacts to historical resources were mitigated in the SPA Plan EIR; therefore, implementation of the proposed project would not adversely affect historical resources, and no impacts would occur.

(b) Less Than Significant Impact. Per the 2006 SPA Plan EIR, the Village Two site does not include any significant archaeological resource sites. Additionally, the project site has been graded and includes some roadway improvements. The proposed project is not anticipated to alter the 2006 SPA Plan EIR findings that no significant archaeological resources exist on the Village Two site. Therefore, archaeological resources are not anticipated to be found, and impacts would be less than significant.

(c) Less Than Significant Impact. As discussed previously, the proposed project site has been graded in preparation for residential development. Paleontological resources were not discovered on the site during grading. Construction activities associated with the proposed project are not anticipated to

disturb significant quantities of on-site soils that have not been previously disturbed. Impacts to paleontological resources would therefore be less than significant.

(d) Less Than Significant Impact. There is no indication that development of the project site would disturb any human remains. The 2006 SPA Plan EIR states that "no human remains were found during site investigations, nor are they expected within the SPA Plan area" (City of Chula Vista 2006, p. 5–135). Additionally, the site has been graded and human remains were not encountered during grading. Impacts would be less than significant.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Comments:

A Geotechnical Letter was prepared by Geocon, Inc. for the proposed project and is included as Appendix B (Geocon 2011). This letter is used to support the analysis included below.

(a)

(i) **Less Than Significant Impact.** Active or potentially active faults are not shown on or in the immediate vicinity of the proposed project site on published geologic maps or on the City of Chula Vista General Plan Geologic Hazards Map, Figure 9-7 (City of Chula Vista 2005a). The proposed project site is not located within an Alquist-Priolo earthquake fault zone (California Department of Conservation 2011). The nearest known active fault is the Rose Canyon fault zone, located approximately 10 miles northwest of the project site. Buildings within the SPA Plan area would be constructed in accordance with the requirements of the governing jurisdictions, building codes, and standard practices of the Association of Structural Engineers of California. The proposed project would not expose people or structures to impacts related to rupture of a known earthquake fault. Impacts would therefore be less than significant.

(ii) **Less Than Significant Impact**. Refer to Response VI(a)(*i*). No active earthquake faults are identified as occurring on or directly adjacent to the project site. The project site is approved for residential development and is subject to all applicable building codes and standards pertaining to reducing impacts from seismic related ground shaking. Additionally, the Geotechnical Letter prepared for the proposed project indicates that no new geologic conditions are present at the site that were not considered in previous geotechnical analyses in support of the 2006 SPA Plan EIR (Geocon 2011). Therefore, impacts from seismic related ground shaking on the proposed project would be less than significant.

(iii) **Less Than Significant Impact.** Liquefaction is a process in which strong ground shaking causes saturated soils to lose their strength and behave as a fluid. Ground failure associated with liquefaction can result in severe damage to structures. The geologic conditions for increased susceptibility to liquefaction are shallow groundwater (less than 50 feet in depth), the presence of unconsolidated sandy alluvium, and strong ground shaking. All three of these conditions must be present for liquefaction to occur. As stated in the 2006 SPA Plan EIR, compliance with the applicable building codes and adherence to standard engineering practices would reduce impacts to development on the site from liquefaction to below a level of significance. Since the proposed project would be subject to the same building codes and standards, impacts would remain less than significant.

(iv) **Less Than Significant Impact.** The proposed project site is not located within a landslide hazard area as indicated on Figure 9-7: Geologic Hazards Map of the City of Chula Vista General Plan (City of Chula Vista 2005a). Therefore, impacts would be less than significant.

(b) Less Than Significant Impact. The proposed site has been graded and improved. Erosion effects during the construction phase of the project could occur due to exposed soils on the site. The developer is currently utilizing best practices to minimize soil erosion on the site, such as using berms of gravel bags, and securing filter fabric on stock piles of construction materials with gravel bags or rocks. The proposed project would not alter the construction footprint, increase the potential for soil erosion, or change the methods used during construction to minimize erosion. Therefore, impacts would be less than significant.

(c) Less Than Significant Impact. Refer to Responses VI(a)(*iii*) and VI(a)(*iv*). No active earthquake faults are identified as occurring on or directly adjacent to the project site. The nearest known active fault is the Rose Canyon fault zone, located approximately 10 miles northwest of the project site. The proposed project would not alter the approved development footprint. Additionally, as indicated on Figure 9-7: Geologic Hazards Map of the City of Chula Vista General Plan, the proposed project site is not located within an area of high liquefaction potential or within a landslide hazard area (City of Chula Vista 2005a). Impacts would be less than significant.

(d) **Less Than Significant Impact.** Refer to response VI(c). The proposed project site has been approved for residential development and graded. The Geotechnical Letter prepared for the proposed project indicates that no new geologic conditions are present at the site that were not considered in previous geotechnical analyses in support of the 2006 SPA Plan EIR (Geocon 2011). Increasing the number of residential units on the Village Two site would not alter the development footprint. The recommendations in the Geotechnical Investigation Reports (Appendixes D-1 through D-4 of the 2006 SPA Plan EIR) would apply equally to the proposed project. Therefore, impacts would be less than significant.

(e) **No Impact.** Implementation of the proposed project would not result in the need for a septic tank or alternative wastewater disposal system. No impact would result.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to	☐	☐	☒	☐

urbanized areas or where residences are intermixed with wildlands?

Comments:

(a) Less Than Significant Impact. As indicated in the SPA Plan EIR, construction activities associated with development of the SPA Plan project would lead to the use of paints, solvents, and other chemicals for housing construction. These hazardous materials would be handled in accordance with California Occupational Safety and Health Administration (Cal-OSHA) requirements for employee safety and disposed of in accordance with state and county regulations. Compliance with existing regulations regarding the use or disposal of hazardous materials and wastes would prevent any adverse impacts on human health and safety from the proposed construction activities (City of Chula Vista 2006).

Residential development of the project site could use household quantities of hazardous materials, such as cleaning solvents, paint, fertilizers, pesticides, etc. This usage would be limited and is not expected to create human health hazards or public safety hazards. Impacts would therefore be less than significant.

(b) Less Than Significant Impact. Refer to response VII(a). The proposed project is not anticipated to create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, impacts would be less than significant.

(c) Less Than Significant Impact. The proposed project is located within one-quarter mile of Otay Ranch High School and within one-quarter mile of a site planned for a future Village Two elementary school site. As noted previously, residential uses are not expected to create human health hazards or public safety hazards. Therefore, impacts would be less than significant.

(d) No Impact. The Department of Toxic Substances Control (DTSC) maintains a "Cortese" list, which is a database of hazardous materials sites throughout the state. The project site is not included on this list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; therefore, the proposed project would not create a significant hazard to the public or the environment (California Department of Toxic Substances Control 2007). Additionally, Appendices K-1 through K-7 of the SPA Plan EIR indicate that the SPA Plan site is not located on any of the searched regulatory databases for hazardous materials sites. No impact would result.

(e) Less Than Significant Impact. The project site is located within the vicinity of the Brown Field Municipal Airport, which is approximately three miles to the south. The project site is not

located within the airport's overflight zone, and Brown Field Airport operations would not result in any significant impacts to the proposed project.

(f) No Impact. The proposed project site is not located within the vicinity of a private airstrip. No impacts would occur.

(g) Less Than Significant Impact. The proposed project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan, as construction equipment staging areas would be restricted to on-site locations, and public roadways would not be impeded by construction operations or equipment that may interfere with emergency vehicles. As indicated in the City's General Plan, the nearest evacuation route is Olympic Parkway, located just north of the project site (City of Chula Vista 2005a). None of the roads located within the immediate vicinity of the proposed project are identified as evacuation routes. Additionally, emergency response to the project site would be handled by the Chula Vista Fire Department, the Chula Vista Police Department, or other responsible agency, depending on the nature of the emergency. Therefore, impacts to emergency response and/or evacuation plans would be less than significant.

(h) Less Than Significant Impact. Wildland fires present a significant threat in the City of Chula Vista, particularly in the summer months when temperatures are high and precipitation is especially rare. Areas in the City that are particularly susceptible to these fires, designated as "very high hazard" areas as delineated on Figure 9.9 of the City's General Plan: Wildland Fire Hazard Map, include areas south of the eastern portion of the Lower Otay Reservoir and areas south of Otay Lakes Road (City of Chula Vista 2005a). The proposed project is located in an area designated "high hazard," therefore while not located in a "very high hazard" area, wildland fires could potentially affect the project site. However, as previously noted, the proposed project site is approved for residential development. Once developed with infrastructure, housing and landscaping the risk of wildland fire would be low. As indicated in the SPA Plan EIR, a Fire Protection Plan (FPP) was prepared for the SPA Plan, which requires that all detailed plans for architecture, landscaping, and engineering be in compliance with the concepts in the FPP and the SPA Plan, including implementation of the fuel modification zone at the Village Two perimeter. These plans will be submitted to the Fire Marshal for review and approval. The proposed project would not alter the construction footprint, or significantly alter the infrastructure improvements or landscaping plans for the site, and would therefore not alter the risk of wildland fires on the site. Therefore, impacts from wildland fires at the site due to the proposed project would be less than significant.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY.				
Would the project:				
a) Result in an increase in pollutant discharges to receiving waters (including impaired water bodies pursuant to the Clean Water Act Section 303(d) list), result in significant alteration of receiving water quality during or following construction, or violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? Result in a potentially significant adverse impact on groundwater quality?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, or place structures within a 100-year flood hazard area which would impede or redirect flood flows?	☐	☐	☒	☐
e) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
f) Create or contribute runoff water, which would	☐	☐	☒	☐

exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Comments:

A Water Quality Technical Report was prepared by Hunsaker for the proposed project and is included as Appendix C (Hunsaker 2011). This report is used to support the analysis included below.

(a) Less Than Significant Impact. Construction activities associated with the proposed project are not expected to violate any water quality standards or waste discharge requirements. Construction activities could result in wind and water erosion leading to sediment-laden discharges to nearby water resources Poggi Canyon and Wolf Canyon Creeks. During construction, gasoline, diesel fuel, lubricating soil, grease, and solvents may be used on the project site. Although only small amounts necessary to maintain the construction equipment would be on site at any one time, accidental spills of these materials during construction could potentially result in water quality impacts. In addition, soil loosened during grading or miscellaneous construction materials or debris could also degrade water quality if mobilized and transported off site via water flow. The developer has prepared and is implementing a Storm Water Pollution Prevention Plan (SWPPP) for the development of the site. The SWPPP describes the methods used to minimize soil erosion on the site during construction, such as berms of gravel bags, and securing filter fabric on stock piles of construction materials with gravel bags or rocks.

As indicated in the Water Quality Technical Report (Hunsaker 2011), the proposed project includes three options for addressing water quality requirements following construction:

Option 1 includes constructing pervious paver areas within the courtyards/driveways with adequate storage for bioretention.. The proposed pervious pavers were sized based on their respective drainage (management) areas, runoff factors per the City of Chula Vista, and a Sizing Factor of 13% to address water quality and hydromodification.. This option also proposes to utilize the approved hydrodynamic separation system (Vortech unit) and a media filtration unit (Stormfilter) to treat a portion of the entitlement areas for Neighborhoods R-7A and R-9A.

Options 2 and 3 address water quality by utilizing the regional stormwater treatment train consisting of a hydrodynamic separation system (Vortech unit) and a media filtration unit (Stormfilter). An approved Vortech/Stormfilter Treatment System is located at the southwest corner of the Heritage Road-Olympic Parkway intersection per the approved 2006 Water Quality Technical Report for Otay Ranch Village 2 – North "Rough Graded". The Vortech unit has been sized to treat the entire 85th percentile flow from the entire Village 2 North site including Neighborhoods R-7A and R-9A

and the Stormfilter is sized to additionally treat a third of the 85th percentile flow. Option 2 proposes to upsize the Stormfilter unit based on Neighborhoods R-7A and R-9A being re-entitled. The Stormfilter unit would be upsized to treat the entire 85th percentile flow generated from Neighborhoods R-7A and R-9A.

Similarly, Option 3 will utilize the approved treatment train concept and upsize the Stormfilter unit. However, the upsize would be based on all of the proposed re-entitlement areas from the Village 2 North project. These areas include Neighborhoods R-6, R-7, R-8A, R-8B, R-9A, and R-9B.

To address hydromodification, the pervious pavers in Option 1 will be underlain with a bioretention area and sized for adequate area and volume storage based on sizing factors per Table 4-11 of the San Diego County SUSMP. Underground detention vaults are proposed to address Hydromodification for Options 2 and 3.

(b) Less Than Significant Impact. The project site has been graded in preparation for residential development. The proposed project is not expected to encounter groundwater during construction activities and would not involve permanent pumping of groundwater, as no development or operational phase of the proposed project would require the direct use of groundwater supplies. With site development, runoff is expected to increase. However, the runoff on the site would percolate within the Village Two site and stay within the Otay River Valley aquifer. The proposed project density would not alter the construction footprint, and would not significantly alter the percolation patterns on the site once construction is complete. Impacts due to the proposed project would be less than significant.

(c) Less Than Significant Impact. The proposed project would increase the residential density of an approved development that has been graded and includes initial site improvements such as roads. The project applicant has prepared and is implementing a SWPPP for the development of the site. The SWPPP describes the methods used to minimize soil erosion on the site during construction, such as berms of gravel bags, and securing filter fabric on stock piles of construction materials with gravel bags or rocks. The proposed project would not alter the construction footprint, the potential for soil erosion, or the methods used during construction to minimize erosion. Furthermore, the SWPPP would be implemented throughout construction of the project. Once construction is complete, the project site would not alter the drainage pattern significantly from what has already been approved in the SPA Plan. The project is part of the overall Otay Ranch Village Two drainage area, which outlets to Poggi Canyon. According to the 2007 Otay Ranch Village 2 – North, Rough Grading Hydrology Study and the Master Drainage Study, the basin inflow and outflow values show that the Poggi Canyon detention basin was designed to release lower peak flow rates than the existing condition. Therefore, erosive conditions downstream of the basin are not expected to exist

(Hunsaker 2011). Flows to Poggi Canyon, including those from the proposed project, were included in the design of the master detention facility. Impacts would therefore be less than significant.

(d) Less Than Significant Impact. Refer to Response VIII(c). The proposed project would not alter the course of a stream or river, as there are no streams or rivers transecting any portion of the project site. Additionally, the proposed project would not result in a change in the approved development footprint and would implement hydromodification measures as outlined in the project's Water Quality Technical Report (Hunsaker 2011). Impacts would therefore be less than significant.

(e) No Impact. As discussed above, the project site has been graded, is relatively level, and is at an elevation above any natural drainages prone to flooding. The project site is not located in or near an area identified as having a potential for flooding as delineated on Figure 9-8: Flood and Dam Inundation Hazards Map of the City's General Plan (City of Chula Vista 2005a). Furthermore, the site is located on an area that has been graded for residential development at an elevation above the surrounding elevations. The site is not at risk for inundation as a result of a failure of a levee or a dam. Therefore, impacts would be less than significant.

(f) Less Than Significant Impact. Refer to Responses VIII(c) and VIII(d).

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Comments:

(a) Less Than Significant Impact. The proposed project would result in an increase in the number of residential units built in Village Two, essentially replacing less-dense residential development with more dense, urban residential development. This would not result in the division of an established community. The 2006 SPA Plan EIR identified significant and unmitigable impacts to land use due to the change from a rural to a more urban use. The residential development proposed would be visually similar to the development approved in the SPA Plan, as well as to those in the surrounding communities, and would therefore not constitute any new significant impacts beyond those identified in the 2006 SPA Plan EIR. Therefore, impacts would be less than significant.

(b) Less Than Significant Impact. The proposed project includes amendments to the Otay Ranch GDP and the SPA Plan. The proposed project also includes one tentative map for neighborhoods R-7A and R-9A. The project would result in a net increase of 197 residential units. The project also proposes to amend the Planned Community District Regulations as necessary to implement the multi-family detached product types within R-7A and R-9A.

Under the GDP, neighborhoods R-7A, and R-9A are in areas designated as low medium village (LMV – 3.5) which is described as including some attached homes that are consistent with the intent of the village viability and the character of the typical single family neighborhood and with a density of not more than six dwelling units per acre (City of Chula Vista 1993). Neighborhoods R-28 and R-29 are designated as Village Core – Medium High (MH – 10.0,) which are described as including multi-family units such as townhomes, garden apartments and stacked flats, including flats over

commercial uses and are designated with a density of not more than eighteen dwelling units per acre (City of Chula Vista 1993). The LMV – 3.5 designation allows for up to 3.5 development units per acre, while the MH – 10.0 allows for up to 10 units per acre. The applicant is proposing density increases within or adjacent to the Village Two core area consistent with GDP policies. Though the proposed project would result in an overall increase in the allowed number of units in these neighborhoods, the project would be consistent with village development in Village Two and would provide a higher density within the Village Two Core. Additionally, the City of Chula Vista has authority over the project and would approve changes in land use designations accordingly prior to development. Without such approvals the proposed project would not proceed. Therefore, the proposed project would not conflict with any applicable land use plans, policies or regulations and impacts would be less than significant.

(c) No Impact. As discussed in Section IV, the project site has been graded and does not include sensitive species or habitat. The proposed project would occur within the pre-approved development area, which is part of the larger SPA Plan. The SPA Plan is a Covered Project pursuant to the Otay Ranch RMP and Chula Vista MSCP Subarea Plan. Therefore, the proposed project would not conflict with the Chula Vista MSCP Subarea Plan.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Comments:

(a) No Impact. Mineral resources in Chula Vista are described in the Environmental Element of the City's General Plan. Mineral Resource Zones (MRZs) are delineated in Figure 9-4: MRZ-2 Area Map (City of Chula Vista 2005a). Mineral resources located within the City include sand, gravel, crushed rock resources, known collectively as construction aggregate. Construction aggregate is a valued resource considering the reduction in construction costs this resource provides, particularly for construction areas in proximity to the aggregate (City of Chula Vista 2005a). The proposed project site is not located within an MRZ, nor is it located on or within any areas containing mineral resources as indicated in the City's General Plan. The nearest MRZ is the Otay Quarry, which is located approximately 1.5 miles south of the project site. Additionally, the project site is not currently being used for mineral resource extraction. Given these factors, the proposed project would not result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State. No impact would result.

(b) No Impact. See Response X(a) above. The proposed project site is not designated as an important mineral resource site, as indicated in Figure 9-4 of the City's General Plan (City of Chula Vista 2005a). As such, no impact would result.

Mitigation: No new mitigation measures are required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Comments:

A Supplemental Noise Study was prepared by Dudek and is included as Appendix D (Dudek 2011b). The analysis contained in this section is based on the findings of the Supplemental Noise Study.

(a) Less Than Significant Impact With Mitigation Incorporated. The results of the noise modeling presented in the Supplemental Noise Study indicate that future noise levels from Olympic Parkway would exceed the City's maximum exterior noise level criterion of 65 dB CNEL at Lots 34, 35, 37 and 38 within Neighborhood R-7A facing Olympic Parkway. Implementation of Mitigation Measure NOI-1 would ensure impacts due to external traffic noise would remain below levels of significance. Future noise levels within the interior portion of the R-7A neighborhood site would meet the City's exterior noise level criterion of 65 dB CNEL at the first floor level due to the shielding from

intervening buildings and greater distances from Olympic Parkway. The noise modeling results are presented in Table 5.

Table 5
Summary of On-Site Future Unmitigated Traffic Noise Levels

Receptor	Noise Level (CNEL)
Lot 34 1st floor	67 dB
Lot 35 1st floor	67 dB
Lot 36 1st floor	58 dB
Lot 37 1st floor	67 dB
Lot 38 1st floor	67 dB
Lot 34 2nd Floor	67 dB
Lot 35 2nd Floor	67 dB
Lot 36 2nd Floor	66 dB
Lot 37 2nd Floor	66 dB
Lot 38 2nd Floor	66 dB

Source: Dudek 2011b

In addition, the City requires that interior noise levels not exceed a CNEL of 45 dB within residential homes. Typically, with the windows open, building shells provide approximately 15 dB of noise reduction. Therefore, rooms exposed to an exterior CNEL greater than 60 dB could result in an interior CNEL greater than 45 dB. The State Building Code recognizes this relationship and, therefore, requires interior noise studies when the exterior noise level is projected to exceed 60 dB CNEL or higher.

The data previously shown in Table 5 indicate that future noise levels would range up to 67 dB CNEL at the homes facing Olympic Parkway. The interior noise levels in habitable rooms of these homes are expected to exceed the 45 dB CNEL noise criterion. As indicated earlier, implementation of Mitigation Measure NOI-1 would ensure that exterior noise levels remain below 65 dB CNEL. Implementation of Mitigation Measure NOI-2 would ensure that interior noise levels would not exceed the 45 dB CNEL criterion. With implementation of these mitigation measures, impacts would be less than significant.

The residential lots located within the internal portion of the site would be subject to less than significant traffic noise impacts (i.e., noise levels of 65 dBA or less). No revised internal ADT traffic volumes are provided as part of this project. However, the traffic report indicates that approximately 59% of the project's traffic volume (i.e., 988 ADT) will access the site via Heritage Road, with the remainder accessing the site via La Media Road. The project's added traffic volume would not result in additional noise impacts within the internal neighborhoods (i.e., R-9A, R28 and R-29) as part of this Amendment.

(b) Less Than Significant Impact. Various types of heavy equipment would be used during the

construction phase of the proposed project. Grading and excavation could result in perceptible vibrations or groundborne noise. However, these impacts would be temporary and would be limited to the City of Chula Vista's allowable hours for construction between the hours of 7:00 a.m. and 10:00 p.m., Monday through Friday, and between the hours of 8:00 a.m. and 10:00 p.m., Saturday and Sunday. Once construction is complete, the project would not be a source of groundborne vibrations. Thus, potential vibration impacts would be less than significant.

(c) Less Than Significant Impact with Mitigation Incorporated. As discussed above under Response XI(a), the proposed project would result in an increase in traffic-related noise impacts. The increase would be proportional to the proposed increase in traffic, and would be mitigated with the implementation of Mitigation Measure NOI-1 to a less than significant level.

(d) Less Than Significant Impact. See Response XI(a). Construction equipment would generate a short-term, temporary elevation in ambient noise levels. This temporary increase in ambient noise levels in the project vicinity would not exceed noise thresholds as denoted in Table 9-2 of the City's General Plan (City of Chula Vista 2005a). Impacts would be less than significant.

(e) Less Than Significant Impact. Brown Field Municipal Airport is located approximately three miles to the south of the project site. The airport accommodates both general aviation aircraft and military aircraft.

The proposed project site does not fall within the Airport Influence Area and the 60dB Community Noise Equivalent Level (CNEL) noise contour, as illustrated in Figure 3 in the Brown Field Municipal Airport Land Use Compatibility Plan (San Diego County Airport Land Use Commission 2010). Therefore, impacts would be less than significant.

(f) No Impact. The proposed project is not located within the vicinity of a private airstrip. No impacts would result.

Mitigation:

NOI-1 A 5-foot high sound wall at the top of the slope along single family lots 34, 35, 37, and 38 in Neighborhood R-7A are required to mitigate the traffic noise associated with Olympic Parkway. With implementation of the sound wall the project will meet the City's 65 dB CNEL exterior noise level criterion. The sound wall may be constructed of any masonry material, or material such as tempered glass, with a surface density of at least three pounds per square foot. The sound wall should have no openings or cracks.

NOI-2 To comply with the City and State's 45 dB CNEL interior noise standard, the homes on Lots

34-39 within Neighborhood R-7A will require a mechanical ventilation system or air conditioning system and possibly sound-rated windows. An interior noise analysis addressing first and second floor noise will be required for the homes on Lots 34-39 prior to issuance of building permits.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Comments:

(a) Less Than Significant Impact. The project proposes to increase residential density in four neighborhoods in Village Two from 235 units to a total of 432 units (net increase of 197 units). In some instances, densities are restored to approximately the same density originally approved as part of the Village Two TM and subsequently reallocated in Village Two through Substantial Conformance. In other neighborhoods, higher densities are proposed to meet current and anticipated future market demand. The density increases are within or adjacent to the Village Two core area, consistent with GDP policies, and given that the GDP calls for the development of approximately 27,000 residential units, an increase of 197 units is not considered to be substantial. Therefore, impacts resulting from substantial population growth would be less than significant.

(b) No Impact. The project site currently consists of a vacant parcel of land and would not displace existing housing. No impact would result.

(c) No Impact. The proposed project would not displace existing housing or result in the displacement of existing residents, and thus would not necessitate the construction of replacement housing elsewhere. No impact would result.

Mitigation: No new mitigation measures required.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any public services:				
(i) Fire protection?	☐	☒	☐	☐
(ii) Police protection?	☐	☒	☐	☐
(iii) Schools?	☐	☒	☐	☐
(iv) Parks?	☐	☒	☐	☐
(v) Other public facilities?	☐	☒	☐	☐

Comments:

(a)

(i) Less Than Significant Impact With Mitigation Incorporated. The City of Chula Vista Fire Department (CVFD) provides fire protection, suppression, and safety services to the City of Chula Vista. The nearest CVFD fire station to the project site is Fire Station No. 7, located within Village Two, less than a mile northeast of the project site at 1640 Santa Venetia Street. As previously discussed, the project would result in an increase in density in Village Two by 197 units. These additional residential units would result in a proportional increase in the number of emergency service calls to the Fire Department annually. However, the project will be required to pay a Public Facilities Development Impact Fee (PFDIF) at the time of building permit issuance, which would mitigate for the increase in emergency service calls. With incorporation of Mitigation Measure PUB-1, impacts to local fire protection services would be less than significant.

(ii) Less Than Significant Impact With Mitigation Incorporated. The City of Chula Vista Police Department (CVPD) provides police protection, law enforcement, and safety services to the City of Chula Vista. The project site is located within Beat 24. The nearest CVPD station to the project site is located at 315 Fourth Avenue in Chula Vista. As previously discussed, the project

would result in an increase in density in Village Two by 197 units. These additional residential units would result in a proportional increase in the number of emergency service calls to the Police Department annually. However, the project will be required to pay PFDIF fees at the time of building permit issuance, which would mitigate for the increase in emergency service calls. With mitigation implemented as described above in Mitigation Measure PUB-1, impacts to local police protection services would be less than significant.

(iii) Less Than Significant Impact With Mitigation Incorporated. The proposed project site is located within the Chula Vista Elementary School District and the Sweetwater Union High School District. The 2006 SPA Plan EIR indicates that the Village Two plan identifies a 10-acre site for an elementary school sized to serve children living in the proposed development.

Using the student generation rates applied in the 2006 SPA Plan EIR, the proposed project would generate an additional 74 students, 59 elementary school, and 15 secondary school students. The Village Two development area, including the project, is within the boundaries of Chula Vista Elementary School District Community Facilities District (CFD) No. 17 and Sweetwater Union High School District CFD No. 17. In addition, Village Two owners have entered into a School Mitigation Agreement with both school districts to mitigate impacts associated with Village Two development. The School Mitigation Agreement runs with the land, and the Village Two property is within the boundaries of school CFDs, therefore, the proposed project area is subject to the same requirements. With incorporation of Mitigation Measure PUB-2, impacts to local school districts would be less than significant.

(iv) Less than Significant Impact With Mitigation Incorporated. As discussed in the 2006 SPA Plan EIR, an increase in population associated with new residential housing is anticipated to result in a proportionate increase in demand for parkland and recreation services. The Otay Ranch GDP requires a minimum of three acres of local parkland per 1,000 residents. With an additional 598 persons the proposed project would require an additional 1.67 acres of local park land. The project would be served by the previously approved 59.6 acres of neighborhood and community parkland within Village Two and a portion of Village Four, which includes four parks (P-1, P-2, P-3 and P-4). In light of ownership changes within Village Two, the Applicant has park credits available in the Village Four Community Park to meet the additional demand from the proposed project.

The increase in population associated with the proposed project would not result in a substantial increase in physical deterioration of neighborhood and regional parks or other recreational facilities. In addition, the applicant will be required to pay park development component and acquisition component Park Acquisition and Development (PAD) fees. With incorporation of Mitigation Measure PUB-3, impacts to existing and approved parklands would be less than significant.

(v) Less than Significant Impact With Mitigation Incorporated. As discussed in the 2006 SPA Plan EIR, an increase in population associated with new residential housing is anticipated to result in a proportionate increase in demand for public facilities. The proposed increase in development is expected to result in an increase of approximately 598 residents in Village Two that would use other public facilities such as libraries. The project will be required to pay PFDIF fees at the time of building permit issuance, which would mitigate impacts. With mitigation implemented as described above in Mitigation Measure PUB-1, impacts would be less than significant.

Mitigation:

PUB-1 Prior to approval of each building permit, the applicant shall pay Public Facilities Development Impact Fee (PFDIF) at the rate in effect at the time of building permit issuance.

PUB-2 Prior to approval of each building permit, the applicant shall pay all required school mitigation fees or enter into an agreement to help finance the needed facilities and services for the Chula Vista Elementary School and the Sweetwater Union High School District.

PUB-3 Prior to approval of the final map, the applicant shall pay required park development fees and dedicate 1.67 acres of local parkland or pay park acquisition fees. Prior to approval of building permits, the applicant shall pay recreation development impact fees in accordance with the fees and phasing approved in the Public Facilities Financing Plan for the SPA Plan.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☒	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☒	☐

Comments:

(a) Less Than Significant Impact With Mitigation Incorporated. See Response XIII(a)(*iv*). The increase in population associated with the proposed project would not result in a substantial increase in physical deterioration of neighborhood and regional parks or other recreational facilities. With incorporation of Mitigation Measure PUB-1, impacts would be less than significant.

(b) **Less Than Significant Impact.** The proposed project does not include recreational facilities or require the construction or improvements of recreational facilities. Impacts would be less than significant.

Mitigation:

Refer to Mitigation Measure PUB-1 in Section XIII.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION / TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Comments:

A Traffic Impact Study was prepared by Fehr and Peers and is included as Appendix E (Fehr and Peers 2011). The analysis contained in this section is based on the findings of the Traffic Impact Study.

(a) Less Than Significant Impact With Mitigation Incorporated. Traffic generated from

construction activities would predominantly involve employee trips to and from the site, ingress and egress of heavy machinery and equipment traffic, as well as material delivery to the project site. The proposed project is not expected to cause a noticeable increase in construction related trips to and from the project site above what has already been anticipated in the SPA Plan EIR. Since construction related traffic would be of short duration and would be concentrated within Village Two, impacts would be less than significant.

Once construction is complete, the proposed project would increase average daily trips as shown below in Table 6.

Table 6
Proposed SPA Plan Amendment Change in ADT

Neighborhood	Approved units	ADT Rate per DU	Estimated ADT	Proposed units	ADT Rate per DU	Estimated ADT
R-7A	44	10	440	82	10	820
R-9A	56	10	560	67	10	670
R-28	46	8	368	135	8	1,080
R-29	89	8	712	148	8	1,184
TOTAL	235		2,080	432		3,754

Source: Fehr and Peers 2011

As shown above, the proposed project would result in an increase of 1,674 trips. This represents a 2.2% increase from the 73,546 trips analyzed in the 2006 SPA Plan EIR. Based upon the City's significance criteria for traffic impacts and the Traffic Impact Study (refer to Appendix E), the following impacts would occur:

Roadways

No project specific impacts nor cumulative impacts would occur to roadway segments within the study area, since both of the failing study segments along Heritage Road (LOS D between East Palomar Street and Olympic Parkway, and LOS E between Main Street and the southern City boundary) would not have more than 5% of the total traffic volume comprised of project traffic, nor would the project contribute more than 800 ADTs. In the case where roadway segments are projected to operate at LOS D or E with project traffic comprising 5% of the total entering volume and more than 800 ADTs, all intersections along these segments are projected to operate at LOS D or better. Since intersection analysis is more indicative of actual roadway system operations, the roadway segment impacts would therefore not be considered significant.

Intersections

A cumulative impact would occur at the all-way stop controlled intersection of Santa Victoria Road/Santa Venetia Street since the intersection is projected to operate at LOS F during the AM peak hour, but the project trips would not comprise 5% or more of entering volume. Signalization of this intersection would improve the operations to LOS B during both the AM and PM peak hours.

The project will be required to pay all applicable Transportation Development Impact Fees (TDIF) to provide financing for circulation element road projects. Payment of the TDIF, as outlined in Mitigation Measure TRA-1, would mitigate cumulative impacts to below a level of significance.

(b) Less Than Significant Impact With Mitigation Incorporated. See Response XV(a).

(c) No Impact. The Brown Field Municipal Airport is located approximately three miles to the south of the project site. The site is not located within the Airport Influence Area (San Diego County Airport Land Use Commission 2010). No impact would result.

(d) No Impact. The proposed project would increase the density of an approved residential development by 197 units, from 2,786 units to 2,983 units. The increase in density would not result in an incompatible use with the proposed surrounding residential, commercial and park uses. Therefore, operational impacts due to hazards or incompatible uses would not occur.

(e) Less Than Significant Impact. During construction activities, construction equipment staging areas would be restricted to on-site locations, and public roadways would not be impeded by construction operations or equipment that may interfere with emergency vehicles. As indicated in the City's General Plan, the nearest evacuation route is Olympic Parkway, located just north of the project site (City of Chula Vista 2005a). None of the roads located within the immediate vicinity of the proposed project are identified as evacuation routes. Access to the site would provide adequate ingress and egress for large vehicles, including emergency vehicular access. Additionally, the proposed project would be required to comply with Fire Department requirements and standards to ensure that adequate access is provided. The proposed project would not involve the permanent closure of any surface streets that would increase the response time for emergency services. The project will comply with all fire codes, and emergency access will be maintained by foot and by truck. Therefore, impacts to emergency access would be less than significant.

Mitigation:

TRA-1 Prior to issuance of building permits, the applicant shall pay the applicable TDIF.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Comments:

A Water System Evaluation and a Sewer System Evaluation were prepared by Dexter Wilson Engineering for the proposed project and are included as Appendices F and G, respectively (Dexter Wilson Engineering 2011a; Dexter Wilson Engineering 2011b). Portions of the analysis contained in this section are based on the findings of those studies. Additionally, a Will Serve Letter was prepared by OWD for the proposed project and is included as Appendix H (OWD 2011).

(a) Less than Significant Impact. The proposed project would result in a net increase of 197 units in the approved Village Two development. Once built, the new housing units would be a new source of wastewater that would be serviced by the City of Chula Vista Public Works Department and the City of San Diego Public Utilities Department. The proposed project's increase of up to 39,845 gpd of wastewater would not require expansion of the wastewater collection system, transportation system, or treatment facilities (Dexter Wilson Engineering 2011b). Therefore, the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, and impacts would be considered less than significant.

(b) Less than Significant Impact With Mitigation Incorporated. The proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that would cause significant environmental effects.

Water

As previously discussed, the project would increase the number of dwelling units within the project site by 197 units, from 2,786 units to 2,983 units. Utilizing a unit demand factor of 300 gallons per day (gpd) per unit, the proposed project would result in a total water demand of 59,100 gpd. Dexter Wilson Engineering's water system evaluation indicated that the proposed project would result in an increase in potable water use of 6,600 gallons per day over what was previously anticipated in the 2006 Subarea Master Plan (SAMP), and that this projected increase in water use would not require changes to the Village Two water delivery system. The 2006 SPA Plan EIR contains a comprehensive disclosure and analysis of potential environmental effects associated with the implementation of the SPA Plan in the City of Chula Vista, and includes a discussion and analysis of the projected potable water demands for the larger SPA of approximately 1.3 million gpd. The 2006 SPA Plan EIR identified significant and unmitigable impacts to utilities and service systems due to the project's incremental increase in potable water consumption and the associated impact to water storage and pumping facilities. The proposed project would represent an increase of 0.5% of the total gpd of potable water use from the initially projected water demand, and this is not considered a significant increase in water use. The proposed project's changes in density and projected increase in water demand has been provided to the water district that services the project site, the Otay Water District (OWD), for use in regional water supply planning. As indicated in their Will Serve Letter, OWD has the storage capacity to serve the proposed project (OWD 2011; included as Appendix H). The project would not result in a significant increase in demand for water, and the project would not require the construction of new water treatment or delivery facilities. Impacts to water supplies and water supply facilities would be less than significant.

Wastewater

Dexter Wilson's sewer system evaluation assigned flow factors to dwelling units based on proposed density to calculate a maximum increase of 39,845 gpd of sewage flow from the proposed project. The evaluation indicated the sewer lines that would collect and deliver sewage from the proposed project sites to the nearby Poggi Canyon Interceptor located along Olympic Parkway have already been built and would have excess capacity at peak flow periods after build out of the proposed project and previously-approved projects (Dexter Wilson Engineering 2010b). The Poggi Canyon Interceptor delivers sewage westerly to a connection to the City's Salt Creek Interceptor in Main Street, just west of Melrose Avenue (City of Chula Vista 2005b). Two segments of the Poggi Canyon Interceptor, which are currently planned for replacement, would be over capacity with wastewater flows from the proposed project and flows from existing and approved projects. The project would not require additional sections of the Poggi Canyon Interceptor to be replaced. Wastewater collected in the Poggi Canyon Interceptor is ultimately treated at the Point Loma Wastewater Treatment Plant, and the proposed project's increase of up to 39,845 gpd would not require expansion of this facility. Once the proposed project is approved, the Poggi Canyon Basin Gravity Sewer Development Impact Fee will be updated to reflect the project's additional units (Dexter Wilson Engineering 2010b). Additionally, mitigation measure UTIL-1 would ensure that the proposed project would not exceed the capacity of any line in the existing wastewater conveyance system. Impacts to wastewater facilities from the proposed project would be considered less than significant with incorporation of mitigation measure UTIL-1.

(c) Less than Significant Impact. The majority of the proposed project is located in the Poggi Canyon Watershed. Surface water in the Poggi Canyon Watershed in the Village Two area flows northward to Poggi Canyon Creek that is located immediately south of Olympic Parkway and along the northern boundary of Village Two. Water in Poggi Creek then flows southwestward to the Poggi Canyon Regional Detention Facility that is located approximately a half mile west of the project site, south of Olympic Parkway. Poggi Canyon Creek is a constructed channel that includes several drop structures and energy dissipater devices to maintain water volume, reduce flow speed and erosion, and ultimately maintain the peak flow rate in Poggi Canyon Creek to levels at or below the pre-developed 100-year flow of 1,300 cubic feet per second (cfs) (City of Chula Vista 2006).

A portion of the proposed project along the southern boundary is located in the Wolf Canyon Watershed. Water in this area drains to a tributary of Wolf Canyon Creek that is located south of the proposed project. After joining with Wolf Canyon Creek, the water flows in a southerly direction just east of the Village Three property where it flows into the Otay River.

As discussed in the SPA Plan EIR, the overall drainage on the site would vary slightly when compared to existing conditions. Runoff from the proposed project would be directed toward either

Poggi Canyon Creek or Wolf Canyon Creek via internal storm drain systems.

Two detention basins, which were included in the SPA Plan EIR, will be used to maintain the 100-year peak flows in Poggi Canyon Creek and in Wolf Canyon Creek.

The existing detention basin in Poggi Canyon Creek will be raised slightly. The second detention basin will be located where the Wolf Canyon Creek tributary enters Wolf Canyon Creek. Impacts associated with these two detention basins were evaluated through the SPA Plan EIR. Though the proposed project would add 197 units to Village Two, this increase in density is not expected to significantly alter the amount of surface runoff caused by the development and would not require additional surface water runoff drainage facilities beyond those that were already planned for and approved. Impacts would be less than significant.

(d) Less than Significant Impact. See Response XVI(b). The project would not result in a significant increase in demand for water, and would have sufficient water supplies available to serve the project. Impacts on local water supplies would be considered less than significant.

(e) Less than Significant Impact. See Response XVI(b). As previously mentioned, a wastewater system evaluation indicated that two segments of the Poggi Canyon Interceptor, which are currently planned for replacement, would be over capacity with wastewater flows from the proposed development, and flows from currently permitted and approved projects. The project would not require that additional sections of the Poggi Canyon Interceptor be replaced and would not require expansion of the Point Loma Wastewater Treatment Plant.

Once the proposed project is approved the Poggi Canyon Basin Gravity Sewer Development Impact Fee will be updated to reflect the project's additional units (Dexter Wilson Engineering 2010b). The proposed project would not result in inadequate wastewater treatment capacity.

(f) Less Than Significant Impact. Using the solid waste generation rates provided in the SPA Plan EIR, the proposed project would result in an increase of 709.2 pounds of solid waste per day, an approximately 5% increase over what was previously anticipated for Village Two. This increase in solid waste is not considered significant, and based on the analysis contained in the SPA Plan EIR, the Otay Landfill would have sufficient capacity to accommodate the proposed project. As a result, impacts would be less than significant.

(g) Less Than Significant Impact. See Responses XVI(f). Anticipated uses on the project site would not violate any federal, state, or local statutes or regulations related to solid waste. Impacts would be less than significant.

Mitigation:

UTIL-1 Prior to the issuance of the first building permit related to any project uses served by the Poggi Canyon Sewer, and to the satisfaction of the City Engineer, the applicant shall:

1.) Bond for the improvement of the constrained reach at Brandywine Avenue (Reach P270) with the first final map for the project, unless otherwise approved by the City Engineer;
2.) Monitor sewer flows within the Poggi Canyon Sewer Basin to the satisfaction of the City Engineer and submit quarterly reports to the City upon the issuance of the first building permit within the Project; unless otherwise approved by the City Engineer;
3.) Obtain the approval for the improvement plan and any necessary environmental permits for Reach P270 prior to the first final "B" Map, unless otherwise approved by the City Engineer;
4.) Commence construction of Reach P270 upon reaching a d/D of 0.75, unless otherwise approved by the City Engineer;
5.) Complete construction of Reach P270 the sooner of one year after occupancy of the first unit sewering to the Poggi Canyon System, or a d/D of 0.85, unless otherwise approved by the City Engineer;
6.) Not seek building permits within the Poggi Canyon Sewer Basin if any segment of the Poggi Canyon Trunk Sewer achieves a d/D of 0.85, or the City Engineer has determined, at his sole discretion, that there is not enough San Diego METRO treatment capacity for the proposed project, unless otherwise approved by the City Engineer.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. THRESHOLDS				
Will the proposal adversely impact the City's Threshold Standards?				
A) Library	☐	☒	☐	☐
The City shall construct 60,000 gross square feet (GSF) of additional library space, over the June 30, 2000 GSF total, in the area east of Interstate 805 by buildout. The construction of said facilities shall be phased such that the City will not fall below the city-wide ratio of 500 GSF per 1,000 population. Library facilities are to be adequately equipped and staffed.				
B) Police	☐	☒	☐	☐
a) Emergency Response: Properly equipped and staffed police units shall respond to 81 percent of "Priority One" emergency calls within seven (7) minutes and maintain an average response time to all "Priority One" emergency calls of 5.5 minutes or less.				
b) Respond to 57 percent of "Priority Two" urgent calls within seven (7) minutes and maintain an average response time to all "Priority Two" calls of 7.5 minutes or less.				
C) Fire and Emergency Medical	☐	☒	☐	☐
Emergency response: Properly equipped and staffed fire and medical units shall respond to calls throughout the City within 7 minutes in 80% of the cases (measured annually).				
D) Traffic	☐	☒	☐	☐
The Threshold Standards require that all intersections must operate at a Level of Service (LOS) "C" or better, with the exception that Level of Service (LOS) "D" may occur during the peak two hours of the day at signalized intersections. Signalized intersections west of I-805 are not to operate at a LOS below their 1991 LOS. No intersection may reach LOS "E" or "F" during the				

average weekday peak hour. Intersections of arterials with freeway ramps are exempted from this Standard.

E) Parks and Recreation Areas	☐	☒	☐	☐

The Threshold Standard for Parks and Recreation is 3 acres of neighborhood and community parkland with appropriate facilities /1,000 population east of I-805.

F) Drainage	☐	☐	☒	☐

The Threshold Standards require that storm water flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with the Drainage Master Plan(s) and City Engineering Standards.

G) Sewer	☐	☐	☒	☐

The Threshold Standards require that sewage flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with Sewer Master Plan(s) and City Engineering Standards.

H) Water	☐	☐	☒	☐

The Threshold Standards require that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth and that water quality standards are not jeopardized during growth and construction.

Applicants may also be required to participate in whatever water conservation or fee off-set program the City of Chula Vista has in effect at the time of building permit issuance.

Comments:

Refer to discussions above in Sections XIII through XVI.

Mitigation:

Refer to Mitigation Measures PUB-1 through PUB-3 in Section XIII.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Comments:

(a) Less than Significant Impact. As described in Section IV, the proposed project would not significantly impact sensitive wildlife, plants or habitats. The proposed project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a facility or animal community, reduce the number or restrict the range of a rare or endangered facility or animal or eliminate important examples of the major periods of California history or prehistory.

(b) Less than Significant Impact With Mitigation Incorporated. The proposed project would have traffic impacts that are individually limited but cumulatively considerable. These impacts would be mitigated to a less than significant level.

(c) Less than Significant Impact With Mitigation Incorporated. Based on the analysis above, it

has been determined that there would be no significant direct or indirect effect on human beings with the incorporation of mitigation.

Mitigation:

Refer to mitigation measures listed above.

XIX. PROJECT REVISIONS OR MITIGATION MEASURES

Project mitigation measures are indicated above, and are also contained in Section F of the Mitigated Negative Declaration and in the Mitigation Monitoring and Reporting Program (MMRP). The proposed project would also be required to comply with the applicable mitigation measures identified and contained within the MMRP for the 2006 SPA Plan EIR.

XX. AGREEMENT TO IMPLEMENT MITIGATION MEASURES

By signing the line(s) provided below, the Applicant(s) and/or Operator(s) stipulate that they have each read, understood and have their respective company's authority to and do agree to the mitigation measures contained herein, and will implement same to the satisfaction of the Environmental Review Coordinator. Failure to sign the line(s) provided below shall indicate the Applicants' and/or Operator's desire that the Project be held in abeyance without approval.

_____

Printed Name and Title of Authorized Representative of
[Property Owner's Name]

_____ _____

Signature of Authorized Representative of Date
[Property Owner's Name]

_____

Printed Name and Title of
[Operator if different from Property Owner]

_____ _____

Signature of Authorized Representative of Date
[Operator if different from Property Owner]

XXI. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated," as indicated by the checklist on the previous pages.

☐ Land Use and Planning	☒ Transportation/Traffic	☒ Public Services
☐ Population and Housing	☐ Biological Resources	☒ Utilities and Service Systems
☐ Geophysical	☐ Energy and Mineral Resources	☐ Aesthetics
☐ Agricultural Resources		
☐ Hydrology/Water	☐ Hazards and Hazardous Materials	☐ Cultural Resources
☐ Air Quality	☒ Noise	☒ Recreation
☐ Threshold Standards	☒ Mandatory Findings of Significance	

XXII. DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project **could not** have a significant effect on the environment, and a **Negative Declaration** will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared. ☒

I find that the proposed project **may** have a significant effect on the environment, and an **Environmental Impact Report** is required. ☐

I find that the proposed project **may** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **Negative Declaration** pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **Negative Declaration**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

_____ _____

Stan Donn
Senior Planner
City of Chula Vista

Date

XXIII. REFERENCES

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APPENDIX A

Air Quality Technical Report

APPENDIX B

Geotechnical Letter

APPENDIX C

Water Quality Technical Report

APPENDIX D

Supplemental Noise Study

APPENDIX E

Traffic Impact Study

APPENDIX F

Water System Evaluation

APPENDIX G

Sewer System Evaluation

APPENDIX H

OWD Will Serve Letter